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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,857	11/19/2003	David Khoury	718395.55	5165
27128	7590	04/18/2005	EXAMINER	
BLACKWELL SANDERS PEPPER MARTIN LLP			ORTIZ, ANGELA Y	
720 OLIVE STREET			ART UNIT	PAPER NUMBER
SUITE 2400				1732
ST. LOUIS, MO 63101			DATE MAILED: 04/18/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

(initials)

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/717,857	KHOURY, DAVID	
	Examiner	Art Unit	
	Angela Ortiz	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 January 2005.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 19 November 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakieski, USP 4,809,949 in view of Grove, USP 3,293,342 for the reasons cited in the previous office action.

The cited primary reference substantially teaches the basic claimed valve including a valve element comprising providing a metal valve body 12 molded or cast to provide a valve seat surface and dimensioned to receive a plug body. The valve plug element 10 is molded of a plastic polymer material, and is rotatably received within the valve body 10. The valve body 12 is provided with seat surfaces 14 and 15, and the plug element is molded with grooves that receive elastomeric seals. The seat surfaces of the valve body provide engages the valve plug element so that an effective seal is created when the plug element is biased into the valve body. See col. 3, line 45 to col. 4, line 60; col. 6, lines 20-30.

The cited primary reference does not teach casting the valve body and molding the plug element without machining per se, nor the molding of dual plastic materials for the plug element and the sealing ridge.

The added secondary reference teaches as conventional the feature of molding a valve sealing means of dual plastic materials wherein an annular seal member is

formed of a rigid plastic material. The seal member is provided with a recess, and an elastomeric material is molded within the recess, and formed with a sealing ridge to create an effective seal when engaged by an opposing surface. A dual material seal prevents the need for adding o-rings to create a similar effect, thus making assembly easier. See col. 2, lines 15-72 and claims 1-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mold the plug member of the primary reference of two materials, in view of the added reference, for avoiding the insertion of additional o-rings and making assembly of the valve more facile.

Note that the primary reference does not have a positive statement that the valve parts are machined; thus the limitation of the molding without machining is deemed met by the applied reference, and would further have been obvious to include for avoiding an additional processing step.

With respect to claims 2 and 4-7, see the primary reference wherein valve body 12 includes a conical cavity, valve seat surfaces, and the plug element includes sealing ridges, see figures 2-3, col. 4, lines 5-40.

With respect to claims 3 and 18, note that the use of the claimed materials, namely metal and dual plastic materials, is disclosed in both references as discussed above.

With respect to claim 8, note the configuration of the valve in USP 4,808,949 in figures 2-3 and col. 5, lines 25-35.

With respect to claims 9-10, 14-17, 19-21, the shape and number of the sealing ridges is deemed an obvious improvement dependent on the use of the finally molded article and is within the choice of the practitioner.

With respect to claims 11-12, note that the added reference USP 3,293,342 shows as conventional the use of a compression spring at the end of seal member 21; it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a spring for biasing the seal as desired.

#### *Response to Arguments*

Applicant's arguments filed 28 January 2005 have been fully considered but they are not persuasive.

Applicant argues that the claimed steps of casting a valve body without machining a valve seat surface, and molding a plug element without machining, and overmolding a sealing ridge onto the plug element are not met by the applied prior art, and are further not rendered obvious by the applied prior art combination.

Note that the primary reference was not relied upon for the step of overmolding as argued. The rejection simply states that an additional seal is desired for cooperation with the plug element, and thus provides motivation for adding one by any conventional means within the skill of the art. Applicant continues the argument by attacking the Grove reference because "the side walls of the body are machined", and the use of Nylon® permits subsequent machining, and uses other pretexts concluding that Grove mandates machining of the plug element.

Grove does not teach machining of the valve seat surface. The recited sections above that allegedly refer to the step of machining have nothing to do with the valve seat surface. Also, the step of permitting machining does not require machining, but rather indicates that it is possible. Even if applicant argued that the surfaces machined were the valve seat surface, note that the reference was not relied upon for the step of not machining, but for the step of molding two different sealing elements onto a valve body. Note that the primary reference does not teach machining of the parts, and one of ordinary skill in the art would not have been motivated to machine a valve seat surface and plug element when the process does not require such a step. Rather, since the primary reference uses two seal elements on the plug member, one of ordinary skill in the art would have been motivated to mold the plug member with the two seal elements for avoiding the cumbersome step of inserting o-rings.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, since the primary reference uses two seal elements on the plug member, one of ordinary skill in the art would have been motivated to mold the plug member with the two seal elements for avoiding the cumbersome step of inserting o-rings. One having ordinary skill in the art

would have been led to employ the plug member with molded seal elements as taught by Grove, as a recognized alternative plug member, motivated by a reasonable expectation that it would suffice for Rakieski's purposes.

Note that consideration of a reference is not limited to its preferred embodiment, but extends to its full disclosure for what it fairly teaches one of ordinary skill in the art, *Merck & Co., inc. v. Biocraft Laboratories, Inc.*, 874 F.2d 804. Disclosed examples or preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments, *In re Susi*, 169 USPQ 423 (CCPA 1971).

***Conclusion***

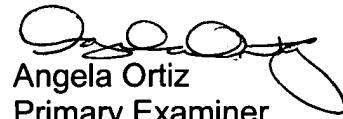
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Angela Ortiz  
Primary Examiner  
Art Unit 1732

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